



HEALTH CARE IN THE TWO GERMANYS :
A COMPARISON WITH EMPHASIS ON
MATERNAL AND INFANT HEALTH CARE

ANNE CAROL REGENSTEIN

1985

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With Emphasis on Maternal + Infant Health Care "

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Health Care in the Two Germanys:
A Comparison with Emphasis on Maternal and Infant Health Care

by
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* * *

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ABSTRACT

Since the time of Bismarck the German government has recognized its responsibility to tend to the health care needs of its citizens. Today, there are two Germanys with widely different political, economic, and health care systems. Since both countries share a common cultural, demographic and historical background they afford a unique opportunity to compare health care systems.

In both the GDR and the FRG citizens are guaranteed the right to health care. Broad coverage of in-patient care, ambulatory services, medications, medical aids and convalescent care are provided. In the GDR, the health care system is centrally run and planned with great emphasis placed upon preventive health care. GDR citizens receive their care in state run facilities staffed by salaried physicians. A mixed public-private system with relatively little government involvement exists in the FRG. The free market nature of the system is evidenced by competition among insurance groups for members and physician reimbursement on a fee-for-service basis.

The health status of the two countries is explored focusing on maternal and infant health. The many demographic, social, and medical variables which impact infant mortality are discussed including incidence of low birth weight, maternal age, availability of contraception, abortion policies and social factors of the mother. The GDR has had a lower infant mortality rate than the FRG; however, the gap between the two countries has been closing. In both countries, improvements in neo-natal care, regionalization of health care and better pre-natal care have lead to a decrease in infant mortality.



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PREFACE

When I first visited Berlin, I was struck by the contrasts of the two sections of the city. I wanted to learn more about the East Germans; how they felt about their country, their West German neighbors, and their communist allies. I returned to Rostock, East Germany in the summer of 1980 to attend an international course on German Studies. As my understanding of East Germany increased my interest in the contrasts between the two countries also grew. It was during this summer that the idea for this thesis was first conceived.

In the summer of 1982 I spent five weeks in each Germany visiting health care facilities, interviewing health care professionals, and discussing a wide range of issues with citizens. In East Germany all my visits were arranged through government guides who accompanied me on every visit I made. In West Germany my visits were arranged through personal contacts.

Because I visited an assortment of facilities and interviewed many different types of health professionals I found a journal to be the most appropriate way to record information. This paper is based mainly on statistics but also draws from the material within this journal.

Such a unique project would not have been possible without the help of many people. Duncan Smith, Ph.D. who has established an exchange program for American and East German students in Rostock, was instrumental in arranging my trip to the GDR. Dr. Horst Klinkmann made the logistical arrangements in the GDR. Beate Wegner and Gerburg Alich, my guides were informative, friendly, and helpful. In the FRG the Kuhn family, Erik Blumenfeld and Dr. F. Begemann made my stay in their country interesting, worthwhile and enjoyable. The trip was made financially possible by the Yale Medical School International Travel Fellowship and a Yale Medical School Research Stipend.

I deeply appreciate the assistance and encouragement Dr. George Silver has given me in the formulation and completion of this project. My special thanks goes to Michael Behrman for his support and for proofreading and re-proofreading this thesis.

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Chapter I

INTRODUCTION

Since the time of Bismarck the German government has recognized its responsibility to tend to the health care needs of its citizens. Today, both Germanys continue to share this philosophy. Due to their different political and economic systems the delivery of health care in each country is widely different. As both countries share the same cultural, demographic and historical background this affords one with a unique opportunity to compare health care systems.

Comparative health care system studies are undertaken in hopes of illuminating various positive and negative aspects of a system whereby future plans and designs for health care delivery can benefit. The W.H.O. in recognition of this concept has appointed expert committees to study various problems in the organization of health services and a number of cross-national papers have resulted.^{1 2 3} Ruth and Milton

¹ W.H.O. Expert Committee, "National Health Planning in Developing Countries"

² Expert Committee on Public Health Administration, Methodology of Planning an Integrated Health Program in Rural Areas

³ Expert Committee on the Organization of Medical Care, "Role of Hospitals in Programs of Community Health Protection"

Roemer, with funding from the U.S. Health Resources Administration, have published an extensive work on health manpower policies in five countries, Canada, Poland, Australia, Norway, and Belgium.⁴

There is only one recently published article comparing the two Germanys. This is an article by Kurt Winter of the GDR(East Germany). Although it is full of interesting statistics demonstrating the benefits of the GDR's system, it is clearly biased. Perhaps because information on the GDR is rather difficult to obtain the GDR has not been the focus of Western research.

Cross-national studies consist of descriptive works and those that analyze specific aspects of medical care delivery. This paper will contain descriptions of the two systems and an analysis of the delivery of maternal and infant health care. In order to describe a health care system one must first define what is meant by this term. Richard Weinerman described a health care system as "any set of arrangements in a society which assigns social roles and resources to achieve the goals of protecting and restoring health to the eligible population".⁵ This paper will focus mainly on personal health services, but as health can be viewed as the attainment of the optimal physical, mental, and social well

⁴ Health Manpower Policies Under Five National Health Care Systems

⁵ Weinerman, "Comparative Health Service Systems", p. 273

being other factors such as social benefits and living conditions will be discussed.

To assess the two health care systems, statistics relating to maternal and infant health care will be examined. This area was chosen for a number of reasons. It is generally felt that preventive care in this area, that is good pre-natal care, has clear benefits. Thus, it will be of interest to compare a structured state run system that places great emphasis on preventive care to a comprehensive health care system that is not centrally planned or run. As industrial nations have improved the health of their citizens, the mortality and morbidity of mothers and infants is one of the few readily available statistics that is an index of the health care system's effectiveness. This is reflected by the great political attention these statistics attract.

Government statistics on services provided, funds spent, distribution of services, health manpower, morbidity and mortality will form the basis of my paper. In addition, I will draw from my own observations while in each country, although it is difficult to draw conclusions from such subjective material.

A number of problems beset cross-national studies. It is difficult to assess the accuracy of the statistics used and reporting practices may vary. For the most part ICD definitions are used by both Germanys, but in some instances, as will be noted they were not.

The two Germanys were once one country, they are not demographically the same. The GDR is a more rural area; in 1970 26.3% of its population lived in rural areas whereas in the FRG (West Germany) only 16.6% of its population in 1975 lived in rural areas.⁶ The population density in the FRG is 248 people/sq. km. versus 155 people/sq. km. in the GDR (1980).⁷ ⁸ The GDR is 99.1% German whereas due to the influx of "guestworkers" the FRG's population is 1.1% Turkish, 1.0% Yugoslavian, 1.0% Italian and 2.5% other ethnic groups.⁹ This difference will be discussed in further detail in Chapter IV. Religious differences also exist between the two countries (see Table 1)

TABLE 1

Religious Affiliation in the Two Germanys

Religion	GDR (1961)	FRG (1970)
Protestant	49.0%	80%
Roman Catholic	44.6%	11%
Other	6.4%	9%

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⁶ Encyclopedia Britannica, Vol. IV pp. 497 & 504

⁷ Statistisches Jahrbuch p. 1

⁸ Daten des Gesundheitswesens, p. 17

⁹ Encyclopedica Britannica, Vol. IV pp. 497 & 504

¹⁰ Ibid. 497 & 504

Despite these differences the Germanys are excellent choices for a comparative study given their overall demographic similarity. The age distribution of the population is markedly similar as is the average life expectancy (see Tables 2 and 3)

TABLE 2

Age Distribution in the Two Germanys

Country	<15	15-30	30-45	45-65	>65
FRG(1981)	17%	24%	21%	23%	15%
GDR(1980)	20%	24%	20%	20%	16%

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TABLE 3

Average Life Expectancy in the Two Germanys

Country	Male	Female
FRG	69.9	76.7
GDR	68.7	74.8

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Both the FRG and the GDR are large industrial powers. The FRG ranks fourth in the world in G.N.P. after the U.S., the U.S.S.R., and Japan.¹³ The GDR is eastern Europe's most de-

¹¹ Daten des Gesundheitswesens, p. 31

¹² Ibid., p.29

¹³ Encyclopedia Britannica, vol. IV p. 504

veloped and prosperous country. 50% of the FRG's work force and 38% of the GDR's work force is in industry.¹⁴ Like many industrialized nations the leading causes of death in the two Germanys are ischemic heart disease and cancer.¹⁵

In addition to their demographic similarities, the two Germanys share a common cultural and historical background. In an effort to destroy the socialist and union movements Bismarck outlawed their organizations and newspapers. But cleverly, in an effort to quell unrest, he simultaneously enacted legislation that they had sought, that being national health compensation. In 1883, this insurance covered only the poor industrial worker and his family, 15% of the population. Its original aim was to provide cash benefits to protect against loss of income. Gradually, the system expanded with assorted insurance funds covering different groups of workers. Hitler attempted to consolidate these funds without success.

Following World War II the health care system in the FRG continued along in its pre-war fashion whereas the GDR changed dramatically. In 1947 when the GDR was the Soviet Zone, Order 28 structured the health care system on the Soviet model.

¹⁴ Ibid., Vol. VIII pp. 54-57

¹⁵ Ibid., Vol IV pp. 497 & 504

The GDR's health care system is centrally planned and run by the government. Emphasis is placed on preventive care, the regionalization of care and easy access to care. The vast majority of physicians are salaried and work in government operated facilities.

There is comparatively little government involvement in the FRG health care system. It is a free market system with sickness funds competing for members and physicians receiving fee-for-service reimbursement. As in the GDR in-patient and out-patient services as well as an assortment of other benefits are provided, but it is clearly a class distinct system.

This paper will attempt to compare and contrast aspects of two very different health care systems in two countries with a common cultural background. A comparison of the effectiveness of the two systems will be based on descriptions of the two systems and statistics relating to maternal and infant health care.

Chapter II

THE GERMAN DEMOCRATIC REPUBLIC HEALTH CARE SYSTEM

The health care system in the GDR is based on the Soviet model with few relics remaining from prior to the division of Germany. There is a planned, comprehensive, state run system with great emphasis placed upon preventive medicine.

2.1 HEALTH INSURANCE

Under the guise of social insurance all salaried employees, apprentices, freelance cultural workers, artists, students, pensioners, and their dependents are enrolled in the GDR's health care system. Since there is no unemployment virtually everyone is insured. Although funds are collected by the Free German Trade Unions for health and social insurance, the Free German Trade Unions do not run the health care system nor do they occupy as powerful a position as their West German counterparts, the workers' sickness funds. This is a result of the central governmental control of the health care system and the ever increasing governmental financial support the health care system receives. In reality the GDR has a national health care plan rather than a national health insurance system.

The ultimate decision-making and responsibility for the health care system lie at the federal level with the Ministry of Health, the People's Chamber and the Council of Ministers. Policy is carried out through both federal and local governments. The GDR is divided into 15 Bezirks and the Bezirks are further divided into Kreis of which there are 217.¹⁶ At each of these local levels there is a council, headed by an elected health officer, which is responsible for local health care delivery. In addition, there exist appointed advisory boards of medical specialists at all governmental levels.¹⁷

The federal health bureaucracy is headed by the Minister of Health who is assisted by his Deputy Ministers. One minister is responsible for the planning of research, and the organization of education and continuing education for all health professionals. A second minister is responsible for the organization and administration of health protection and hygiene in both the ambulatory and in-patient settings. A third deputy is in charge of finances and all questions related to medical technology, pharmacology, quality control and the development of new products. As on the local government level, an advisory board, including sixty physicians, plays an important role in the formulation, coordination, and integration of national policy.

¹⁶ Winter, "Health Services in the GDR compared to the FRG"

¹⁷ Health Services in Europe, WHO, p.64

2.1.1 Finances

There has been a steady increase in the amount spent on health care (Table 4). The percent of national income spent on health care has remained relatively constant however. A further breakdown of this financing is found in Table 5

TABLE 4

Budget for Health and Social Services*

Year	Health & Social Services	National Income	% of GNP Spent on Health & Social Services
	(in billion Marks)		
1950	1.4	27	5.1
1960	4.2	72	5.9
1970	5.9	109	5.4
1980	9.5	174	5.5

*excluding social insurance, pensions, and capital outlays

¹⁸ Gesundheitwesen, DDR, p. 278

TABLE 5

Health and Social Services Spending*

Area	Expenditure in Million Marks	
	1975	1980
Total	7,888	9,533
Healthcare(total)	4,877	6,082
-Hospital care	2,645	3,418
-Outpatient care	1,554	1,879
Social Services(total)	2,961	3,394
-Homes for the Aged	396	550
-Daycare	617	796
-State support for mothers & child	1,451	1,337

*excluding pensions, social insurance benefits during illness and investments.

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As can be seen, outlays for in-patient care have remained relatively stable. They accounted for 54% of health care expenditures in 1975 and 56% in 1980. It does appear that the government is recognizing the need to care for the elderly as expenditures have increased 38% in five years for homes for the aged.

One deficiency in this data is the lack of information on investments in new facilities and new equipment. My observations in the facilities I visited and comments from GDR health professionals suggest that the paucity of Western currency has limited the GDR's ability to purchase technology and medication. Funds from social insurance for the purchase of medication and medical aids have increased from

¹⁹ Ibid., p. 283

1,657.6 million marks in 1975 to 2,251.5 million marks in 1980.²⁰

The funds for social insurance come from a tax on workers' wages, the employee contributes 10% of his/her wages and the employer contributes 12% of the worker's wages. The ceiling on income calculated for the insurance is 600 marks/month, thus the highest worker's contribution is 60 marks/month. The average worker's salary in 1980 was 1030 Marks/month.²¹ The maintenance of this ceiling has kept the funds for social insurance rather static. As a result of this the state subsidy for health expenditures has increased substantially (42% of expenditures in 1975).²²

2.1.2 Planning

A key feature of the GDR's health care system is central planning. The plans for health care are part of the nation's overall economic plans. The construction of new health care facilities, the purchase of equipment and the enrollment of students in the health sciences are all centrally planned. There exist short, medium and long term plans carried out at the federal as well as at the local level. The present five- year plan has the following goals:

²⁰ Ibid., p.283

²¹ The German Democratic Republic, p. 266

²² Health Services in Europe, p. 63

- enhance the quality and effectiveness of medical and social care, especially through concentration on key medical research tasks and the planned translation of medical findings into medical practice
- prevention, early detection, and early treatment of disease
- extension of surgical subspecialities
- construction of new ambulatory and in-patient facilities
- increase admissions to nursing schools
- increase number of daycare spots
- increase number of spots in homes for the elderly. ²³

2.1.3 Benefits

Members of the insurance plan are covered for all ambulatory and in-patient care, dental care, medications, medical aids, spa and sanatorium treatment, and health prevention measures. As proof of insurance each member receives a booklet that also doubles as a medical record. Each health care visit and treatment is briefly noted within the booklet (excluding psychiatric care). Patients have the right to select the physician of their choice.

In addition, to the comprehensive in-patient and ambulatory services offered in the GDR, numerous other benefits are awarded to members of the social insurance plan. Cash benefits are awarded for maternity and sickness leave, occupational injury and disease, and disability. Cash awards are made to the survivors of a worker upon his/her death. Old age pensions from the social insurance plan are based on past income and years of employment. A supplemental pension

²³ Sixth Report on the World Health Situation, p. 187

fund is also available.

During sickness leave a worker receives 90% of his/her earnings for the first seven weeks and, thereafter one receives 50-90% of one's earnings depending upon the number of dependents one has for up to one and one-half years.

Maternity benefits are abundant in the GDR. These are concordant with the socialist philosophy of the country, but also reflect a desire to raise the birth rate. They have met with success in this regard. Although the number of live births/1000 females 15 yrs.-45 yrs. fell from 83.9 in 1960 to 51.9 in 1974 it subsequently rose to 65.0 in 1979.²⁴ Maternity leave commences six weeks prior to the estimated date of delivery and ends twenty weeks following delivery. Paid maternity leave is lengthened to one year for the births of subsequent children. If no daycare is available a mother may stay at home with her child and receive compensation until the child reaches three years of age. A single female parent receives additional monthly supplements while on leave.

When a child is ill a working parent who stays at home to care for the child receives 90% of his/her earnings. Mothers with two or more children under the age of 16 are entitled to a reduced work week without a reduction in pay (from 45 hrs/week to 40 hrs/week). Pregnant women are forbidden

²⁴ Statistisches Jahrbuch, p.366

to work the night shift or perform heavy work. With a physician's order a woman can get a lighter job during her pregnancy (17% of pregnant women take advantage of this).²⁵

Since 85% of all women in the GDR work, daycare is critical (see Table 6) .

TABLE 6

Labor Force Participation Rates of Women by Age of Child

Country	% Women with Child Aged:		
	0-3	3-6	School Age
FRG	32%	34%	41%
GDR	80%	85%	85%
USA	35%	48%	56%

²⁶ One important goal of recent central plans has been to increase the number of spots in daycare centers. The number has risen from 183,412 in 1970 to 289,550 in 1980. The percentage of children age 0-3yrs in daycare has risen even more dramatically from 29% in 1970 to 61% in 1980. However, due to the generous maternity benefits few children under one year are in daycare (10.5% in 1980).²⁷

²⁵ Gesundheitswesen, DDR, p.280

²⁶ "Monthly Labor Review" Nov 1980 p. 24

²⁷ Gesundheitswesen, DDR p.231

I had the opportunity to visit two daycare centers in Rostock which were bright, clean, new facilities. Despite the increase in daycare I was told that it is still short of demand, and that parents are advised to sign up prior to conception.

Babies as young as ten weeks are enrolled in daycare (these are frequently the children of students). Children are gradually introduced to the daycare center over an eight day period. The children are divided into groups of twenty according to their age. Each group has its own cheerfully decorated sleep room, play room, and bathroom. In addition, there is an isolation room for sick children. The centers open at 6:00AM and close at 6:00PM. The cost is 1.4M/day to cover food costs.

Ideally the staff to child ratio is 1/6; however, it is frequently higher due to a staff member's illness, their own child's illness or vacation. At one center there were a total of 65 staff members many of whom had training specifically as daycare workers. The average salary was 500-700 Marks/month (national average 1030 M/month)

Health care is supplied through bi-weekly physician visits. The children under one year of age are examined monthly, those between the ages of one and two every six weeks and children between two and three are examined every three months. A dentist makes regular visits and immunizations are performed at the daycare center.

Parental involvement consists mainly of informal talks with their children's caretakers. Twice a year there is a formal program for the parents. Home visits are made prior to a child's enrollment and if a special problem arises.

A problem often cited during my visits was that children in daycare were frequently ill. It is felt that the close contact with many other children promotes the spread of minor childhood illnesses. The average absentee rate in 1980 was 11.9%.²⁸

Many citizens commented to me that they felt the state had taken over much of the responsibility of raising children. Since most parents work 45 hours/week (not including housework and shopping) they have a limited amount of time with their children. Young children are cared for in daycare, and older ones are in school and state run after-school programs.

In addition to providing daycare and generous maternity benefits the government has enacted other policies to promote reproduction among young couples. Couples who marry prior to the age of twenty-six are granted loans toward the purchase of a home, appliances, and furniture. Significant deductions are made from the balance owed upon the birth of children. Parents receive monthly payments from the birth of a child till that child's independence. Apartments are

²⁸ Ibid., p.291

extremely scarce in the GDR. It is not uncommon for divorced couples to have to remain together in the same apartment for years because housing is unavailable. Those with children are given top priority for housing, a further incentive to start a family.

These various policies have had their effect. The average age at first marriage in the GDR in 1979 was 23.3 years for men and 21.3 years for women which is lower than the 1969 statistics of 24.2 years for men and 22.1 years for women.²⁹ Perhaps also related to the government's incentives for marriage is the rising divorce rate. The number of complaints filed for divorce has risen from 40,437 in 1960 to 46,509 in 1970 to 58,043 in 1980.³⁰ The number of people divorcing per year has risen from 16.1/10,000 in 1970 to 26.7/10,000 in 1980.³¹

2.2 THE DELIVERY OF HEALTH CARE

2.2.1 Facilities

The backbone of ambulatory care delivery is the polyclinic. In many respects polyclinics resemble the Health Maintenance Organizations in this country. A polyclinic employs family practitioners, internists, obstetrician/gynecologists,

²⁹ Statistisches Jahrbuch, p. 365

³⁰ *Ibid.*, p.383

³¹ *Ibid.*, p. 365

pediatricians and dentists so that a family can receive all their basic health care in one facility. X-ray facilities, diagnostic laboratories and physical therapy departments are also found in the polyclinic. The location of a polyclinic is planned so that it will conveniently serve the local community. Therefore, the polyclinics are centrally located in urban settings or at major workplaces. In addition, some polyclinics are combined with hospitals serving as referral centers as well as providing basic care.

Ambulatoria are smaller facilities generally found in smaller towns. The ambulatorium employ one generalist and one specialist. More rural areas are served by state salaried physicians in solo practice and by ambulanzen, facilities that are staffed full-time by a nurse with scheduled part-time physician hours. Only 7.5% of the physicians working at ambulanzen are general practitioners.³² Tables 7 and 8 demonstrate the growth of these facilities. Table 8 specifically shows the growth of health facilities at the workplace.

³² Gesundheitswesen, DDR, p. 170

TABLE 7

Ambulatory Care Facilities

Year	Polyclinics	Ambulatorium	Ambulanzen	State Supported Solo Practices
1950	184	575	---	-----
1960	399	766	298	298
1970	452	828	911	1,301
1980	561	969	983	1,645

33

TABLE 8

Ambulatory Care Facilities at the Workplace

Year	Polyclinics	Ambulatorium
1950	36	109
1960	89	177
1970	94	243
1980	123	324

34

The polyclinics I toured impressed me by their pleasant physical plants, their accessible locations and the orderliness with which they were run. However, both physicians and patients complained that they were impersonal. Doctors, here as elsewhere in the GDR, complained of the lack of technology and budgetary constraints.

³³ Ibid., p.168

³⁴ Ibid., p.222

As in this country, hospitals are characterized by their level of specialization, the Bezirk and University affiliated hospitals being the most specialized. There has been an increasing trend toward regionalization and cost effective utilization. (Table 9) Table 9 also reveals a sharp decline in privately run hospitals and an overall decline in the number of hospital beds. Currently, the ratio of hospitals beds per 10,000 inhabitants is 102.7 and the occupancy rate is 74.8%.³⁵

TABLE 9

The Number of Hospitals and Beds

	Total	State	Church	Private
1960 Hospitals	822	679	88	55
Beds	204,767	189,260	13,523	1,984
1970 Hospitals	626	523	82	21
Beds	190,025	176,536	12,540	949
1980 Hospitals	549	464	80	5
Beds	171,895	159,680	11,711	356

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I had the opportunity to visit two government run hospitals in the GDR. The physical plants were old and inconvenient, but they were orderly and clean. Most patients were in ward rooms and appeared to be very well cared for. As always, I heard complaints of nursing and technological short-

³⁵ Ibid., p.208³⁶ Ibid., p. 212

ages.

The Church is in the unique position of being able to offer an alternative to the state structure. I did have the unique opportunity to make an unofficial visit to a Catholic hospital which was arranged through a friend. At this Catholic hospital I was told that the Church's activities are moderately tolerated. Reportedly, their work with the handicapped and the elderly is unrestricted by the government, but work with children, in such areas as, daycare and delinquent rehabilitation, is restricted.

The director of the hospital explained that like any other hospital it serves a specific area of the city for emergencies, but that any patient can use the hospital's elective services. He and the staff felt the atmosphere was more humane than in a state run hospital. Reportedly, there is a surplus of applicants for positions; however, the administration is careful to keep a high percentage of the staff Catholic for without this distinctiveness the state would have grounds for assuming its control. Medical students can elect to do clinical rotations in this hospital; however, for physicians and students it is considered deleterious to further career advancement to work in a Church affiliated hospital. Many of the staff were disaffected with the government and were happy that they could work in a non-state run facility.

Financially, the hospital is reimbursed by the government on a per diem and per procedure basis (this differs from the system of yearly budgets at the government hospitals). Therefore, they have an incentive to achieve high occupancy rates and reportedly ran at an average of 82% of capacity. The hospital receives additional support from the Catholic church both inside and outside the GDR.

2.2.2 Manpower

In 1980 there were a total of 17,600 physicians working in outpatient settings serving a population of 16,700,000. Of these, 60.4% worked in polyclinics, 17.5% worked in ambulatoriums, 1.4% in ambulanzen, 10.6% in state supported solo practices(salaried physicians), 5.2% in health stations manned by a physician(90% of whom are generalists).³⁷ Interestingly, 4.9% of outpatient care physicians continue to have private practices, which are allowed under a grandfather clause.³⁸ There has been a steady increase in the number of full-time physicians in out-patient settings from only 7,182 in 1965 to 10,687 in 1970 to 16,733 in 1980.³⁹ The discrepancy between this figure and 17,600 noted above is accounted for by part-time physicians. This reflects the government's emphasis on preventive care and an increase in the

³⁷ Ibid., p.171

³⁸ Ibid., p. 170

³⁹ Ibid., p.169

total number of physicians in the GDR. This number had been depleted prior to the construction of the Wall. The national average physician to population ratio is 1/570 while that of physicians working in an out-patient setting is 1/951.⁴⁰

The range of out-patient physician/population ratio is a high of 1/604 found in the Bezirk of East Berlin to a low ratio of 1/1190 found in the Bezirk of Neubrandenburg. Thus, the problem of distribution of health care exists despite planning efforts. A further indication of the relative shortage of physicians in the more rural areas is evidenced by Table 10. In the most rural setting a solo practitioner sees approximately 30% more patients than the urban physician working in a polyclinic. The government has had difficulty enticing physicians away from metropolitan areas.

TABLE 10

Yearly Visits Per Physician

Year	Visits/Physician		
	Polyclinic	Ambulatorium	State Solo Practices
1971	8,475	10,515	12,871
1980	8,316	10,904	12,246

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⁴⁰ Ibid., p. 172⁴¹ Ibid., p. 281

Using the data from Table 10 and the physician/population ratio some interesting calculations can be made. The average GDR citizen makes approximately ten physician visits per year. This figure is due to a number of reasons. A GDR citizen must get a written excuse from a doctor for absence from work and children in daycare centers are seen quite frequently by a physician. If a physician works 250 days a year, then a state physician in solo practice sees approximately 50 patients/day and a polyclinic physician sees approximately 33 patients/day.

I had the opportunity to observe the work of a physician in a rural ambulatorium. He enjoyed the autonomy and lack of bureaucracy that such a practice afforded him. Between office hours he would make house calls to those who were unable to come to the ambulatorium, and despite a full day did not feel overworked. Like other doctors throughout the GDR he complained to me about the general lack of medication, technology and equipment especially that from the West. Specific complaints he noted about an ambulatorium practice were that all laboratory studies had to be sent out, that he frequently had difficulty scheduling radiologic studies and that the nearest ambulance was located one-half hour away. The handling of an emergency is also hindered by the fact that most people in rural areas do not have phones. Interestingly, I was informed that in order to obtain a driver's license one must be certified in C.P.R..

As in the FRG there is a distinct separation between physicians who work in ambulatory settings and those who work in hospitals. In 1980 there were a total of 11,700 physicians working in hospitals.

Nurses also play an important role in health care delivery. In 1980, there were 74,000 regular nurses (4.4 nurses per 1000 inhabitants), 16,000 pediatric nurses and 10,000 nurses working in outpatient care.⁴² Throughout my stay I heard physicians complain of nursing shortages. One pediatric unit I visited was very short-staffed due to a combination of staff vacation and an influx of patients. The staff on one shift consisted of one physician and three nurses to care for twenty children including nine neonates receiving intensive care. Despite the complaints of a shortage of nurses the ratio of nurses to inhabitants is excellent.

Midwives are used throughout the GDR. They assist physicians in providing pre-natal care and perform most deliveries under physician supervision. An important and quite useful element of the health care system is the "community" nurse of whom there were 5,438 in 1980. Their duties include preventive care, refilling of certain prescriptions, hygiene inspections, handling minor medical problems, and home care for the ill and dying. As residents of the community they are well acquainted with the people they serve.

⁴² Ibid., p.272

Chapter III

THE FEDERAL REPUBLIC OF GERMANY HEALTH CARE SYSTEM

The delivery of health care in the FRG is the product of a mixed private-public system. The system is based on the use of independent sickness funds which assure comprehensive health insurance for their members. The government, the sickness funds, and the Doctors' Association are the three institutions that share the responsibility for the delivery of health care.

3.1 HEALTH INSURANCE

There are three categories of health insurance in the FRG, the compulsory sickness funds, the substitute sickness funds and private insurance. Blue collar workers are insured in the compulsory sickness funds, but do have the option of purchasing the other types of insurance. The white collar worker may purchase the coverage of his/her district's sickness fund (a compulsory sickness fund), the substitute sickness fund, or private insurance. Since there is some degree of choice, sickness funds compete for members.

In 1979 there were a total of 1,331 different sickness funds. They are broken down into categories designed to serve specific groups of workers (table 11)

TABLE 11

Sickness Funds in the FRG

Type of Fund	No. of Funds	Percent of Workers in Fund
Compulsory Sickness Funds		
District(1)	276	47%
Industrial(2)	863	12%
Miners	156	5%
Farmworkers	19	3%
Sailors	1	<1%
Artisans and Handworkers	1	3%
Substitute Funds for Blue Collar Workers	8	1%
Non-compulsory insurance	7	29%
Substitute Funds for White Collar Workers		

(1) District-available for both blue and white collar workers. This fund is also used by those who are not covered by other funds.

(2) Industrial-large industrial companies have funds specifically for their workers.

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All blue collar workers and their dependents are covered under the sickness funds. The unemployed and those on social welfare are covered by the district sickness funds. In sum, 99.8% of the population is insured.⁴⁴

⁴³ Daten des Gesundheitswesens, p.202

⁴⁴ Schulenberg, "Report from Germany", p. 328

The federal government plays a limited role in health care delivery. It has no legal right to legislate in health care except for measures concerning infectious disease, drugs and narcotics, toxic substances, food and other consumer goods, health professionals, social insurance, labor protection, financial support of hospitals, and public welfare. The bulk of the legislative responsibility lies at the level of the Lander of which there are eleven in the FRG. The Conference of Health Ministers, the Working Group of Medical Administrators and an assortment of advisory boards seek to coordinate the efforts of the various Lander. Each Lander has its own licensing board for physicians.

3.1.1 Finances

In 1976 the total expenditures of the compulsory and substitute sickness funds of which 90% of the population are members was 70,000 million marks or 6% of the G.N.P..⁴⁵ The total national expenditures on health in 1976 (including education, research, investments, etc.) was 146,192 million marks or 12% of the G.N.P..⁴⁶ During the next two years health expenditures rose 18% to 165,182 million marks, the breakdown of these costs is shown in Table 12.⁴⁷ A breakdown of the sources for health care funds is shown in Table 13.

⁴⁵ Sixth Report on the World Health Situation, p. 388

⁴⁶ Daten des Gesundheitwesens, p. 308

⁴⁷ Ibid. p.308

TABLE 12

FRG Expenditures on Health Care in 1978

	In Million Marks
Preventive and General Care Measures	10,200
Treatments	96,093
-Out-patient	27,319
-In-patient	33,793
-Spas	5,224
-Medications & medical aids	29,757
Rehabilitation and Convalescence	50,027
Research & Education	2,309
Other	6,553
Total	165,182

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TABLE 13

Funds for Health Care in 1978

Source	Amount(in Mill. Marks)
Public Funds(Federal, State, & Church)	22,909
Statutory Sickness Funds	79,035
Pensioners' Insurance	13,052
Private Insurance	7,349
Employers	33,373
Private Funds	10,284

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⁴⁸ Daten des Gesundheitswesens, p. 308

⁴⁹ Daten des Gesundheitswesens, p.306

Table 12 reveals that only 6% of the funds are spent on general and preventive health care measures. Combining this amount with the funds spent on out-patient treatments gives a total of 22% of funds spent on ambulatory care. Expenditures on in-patient treatments are approximately 25% higher than expenditures on out-patient treatments. Of note is that approximately one third of health care expenditures are for convalescence and rehabilitation. More money was spent on medication and medical aids than on out-patient treatment. No data on expenditures for nursing homes was available. Table 13 reveals that only 14% of funding for health care came from public sources (governmental and church).

The funding for the sickness funds comes from both employer and employee contributions totalling 8% of a worker's wages(subject to a ceiling). The employee contributes 4% and the employer contributes 4%. The only governmental contributions to the sickness funds are for those on social welfare, for the care of veterans with service related injuries or illnesses, for cash benefits and a supplement to the miners fund(1% of a miner's insurable income).

The sickness funds cover the expenses for all ambulatory, in-patient, spa and sanatorium health care. The funds the hospital collects from insurance go toward the current costs of running the hospital while capital costs are paid separately by the government, the Church or by private corporations.

The compulsory and substitute funds pay the physician a set fee for each service or procedure performed. Specialists do not receive higher fees than a generalist for performing the same service or procedure. However, certain procedures can only be performed by a specialist. The fee schedule is determined by both the sickness funds and the Doctors' Association. If these two bodies can not reach an agreement then the case is brought before arbitrators consisting of five physician representatives and five sickness fund representatives. If this non-governmental group can not reach an accord then the Labor Minister is asked to appoint a neutral arbitrator. These processes are rarely needed. The different sickness funds have different fee schedules; a wealthier fund, such as that of the Krupp manufacturing firm, will pay higher fees than that of a poorer fund, such as the farmer's sickness fund. One might infer that physicians would have a preference for patients belonging to those sickness funds that pay more. This premise has been supported a study that found that a patients' waiting time varies according to the wealth of his/her sickness fund.⁵⁰

Members of the sickness funds do not receive bills or any information concerning the cost of the care they have received. Therefore, a patient can not question the accuracy of charges nor realize the cost of his/her medical care.

⁵⁰ "Report from Germany", p.335

The Doctors' Association collects all fees for outpatient services and distributes quarterly the appropriate amount to each physician. Since 1977 there has been a cap on the yearly expenditures allowed for ambulatory care. If this cap is exceeded all physicians' reimbursements are proportionately reduced. All physicians are members of the Doctors' Association except those who solely treat private patients. Prior to 1932, the Doctors' Association did not exist and each physician dealt directly with the sickness funds. Hence, there was much variation in reimbursement and the sickness funds were quite powerful. This situation lead to a great number of disputes including physician strikes in the 1920's.

There is a ceiling on the fees a physician can charge a member of a private insurance(only 10% of the population falls under this category). The generosity of these ceilings is evidenced by the fact that in 1978 physicians charged on the average 49% of the maximum allowed.⁵¹

Private insurance differs in that patients receive the doctors bills and are then reimbursed by the insurance company. As with the Substitute Funds the cost of a private or semi-private hospital bed is covered.

⁵¹ Ibid., p. 334

All health insurances cover the in-patient costs of a hospital bed, procedures, medications and tests. The in-patient reimbursement scheme of the substitute and private funds is different from that of the compulsory funds. The compulsory fund pays an established fee to the hospital per day which covers all costs including doctors' salaries. The private and substitute funds pay a fee for the room and pay the physicians separately.

Only the chief-of-service may receive fees for his/her services, all other in-patient physicians are salaried. It is customary for the chief-of-service to share these fees with his/her assistants. The amount given the assistant is totally decided by the chief-of-service.

3.1.2 Planning

The FRG health care system is not conducive to comprehensive planning. The need for better allocation of resources has been recognized and towards that end legislation was enacted in 1977 mandating distributional planning of health services by 1987. The responsibility for this task was assigned to the professional organizations. They are to develop a variety of incentives and solutions for this problem. The Doctors' Association has primary responsibility for developing a Health Services Needs Plans to be approved by the Association of Sickness Funds. The main goal will be

to plan for primary care delivery and speciality distribution. Since 1977, when the Health Insurance Cost Containment Law was passed, a National Health Conference makes annual recommendations to the sickness funds, the Doctors' Association, and the government concerning the fee schedules and regulatory measures. Despite these attempts to control costs, physicians remain the most highly paid professionals earning five times as much as the average blue collar worker.⁵²

The goal of the Hospital Financing Act of 1977 is to establish a more equitable regional distribution of beds, the regionalization of care and an increase in occupancy rates. The law combines accreditation approval with financial support; unfortunately, its scope is limited since it only affects new hospitals or additions to existing structures. The effectiveness of this law can not be judged by the available data(only up till 1980).

The Doctors' Association exerts some cost control by monitoring prescription and treatment costs. If a physician has prescription or treatment costs that are 20% above the yearly average for physicians in that particular speciality the doctor will receive a warning. If this situation arises again he or she will be called upon to justify those extra costs. If a physician can not justify those added expenses

⁵² Ibid., p. 336

then he/she must reimburse the sickness fund for that extra amount. The physician may take recourse in a legal court. The prices of medications themselves are controlled at the retail level but not at the manufacturing or wholesale level.

3.1.3 Benefits

Despite the large variety of sickness funds, the type of care one receives from the various compulsory funds does not vary in substance. All sickness funds cover the costs of both in- and out-patient care. Pharmacy costs are heavily subsidized, the purchaser only pays 20% of the cost up to a ceiling of 2.5DM(approximately one dollar). A worker can purchase supplemental insurance that will cover the costs of a private or semi-private room, otherwise he/she will be hospitalized in a ward room.

Those covered by the compulsory or substitute funds receive a certificate each quarter indicating that they are insured. A patient can select the physician of his/her choice. If the patient wishes to see another physician he/she must either wait until the next quarter when a new certificate will arrive or ask the physician to transfer the certificate.

The substitute sickness funds are used mainly by the white collar workers. The benefits are slightly better than

the compulsory sickness funds in that the patient is entitled to a private or semi-private room. Unlike the compulsory sickness funds the contracts between the substitute funds and the Doctors' Association are not under government control. Physician fees tend to be about 30% higher. The physicians who treat these two groups of patients are the same. In hospital all patients are treated by salaried physicians who work solely in the hospital. There are a few "Beleg" physicians who have hospital beds reserved for their patients (they only exist in the smaller hospitals). The "beleg" physicians are able to practice both in-patient and out-patient medicine.

As noted only the "oberarzt" or chief-of-service is allowed to have private patients. Privately insured patients or those who are willing to pay a fee may elect to have the chief-of-service as their personal physician.

The original intent of the sickness funds was to provide cash benefits to those who could no longer work. An assortment of cash benefits remain in existence. When a worker is unable to work because of illness, the employer must pay his/her full wages for six weeks. Thereafter, the sickness fund pays 75% of his/her wages (subject to a ceiling) for a maximum of 78 weeks within a three year period. Supplements are also provided for dependents. The funds pay full wages for five days if a parent must remain home with a sick child

who is less than eight years of age. Household help is paid for if a parent of a young child must be hospitalized.⁵³ Seven and one half months are granted for maternity leave.⁵⁴

Fewer women with children in the FRG work than in the GDR as seen in Table 6 . Few children of working mothers are in daycare in the FRG (only 4% in 1975).⁵⁵ In the GDR there is a need to have women in the work force and daycare is a service that supports working mothers. The prevailing attitude in the FRG is that the care of children is a private matter, and not the responsibility of the state.

Unlike the GDR, there are no specific government policies designed to increase the birth rate in the FRG. The birth rate in the FRG has fallen to 10.1 births/1000 inhabitants compared to 14.6 births/1000 inhabitants in the GDR.⁵⁶ The average age to wed has remained fairly stable over a twenty year period (Table 14). In 1982 118,483 divorces were granted, giving a ratio of 19 divorces/ 10,000 people.⁵⁷

⁵³ "Was Ich Über Meine Soziale Krankenversicherung Wissen Sollte"

⁵⁴ Ibid.

⁵⁵ Kamerman, "Child Care and Family Benefits, Policies of Six Industrialized Nations"

⁵⁶ Daten des Gesundheitswesens, p. 32

⁵⁷ Statistisches Jahrbuch für die BRD, p. 79

TABLE 14

Average at First Marriage in the FRG

Year	Male	Female
1960	25.9	23.7
1970	25.6	23.0
1980	26.1	23.4

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3.2 DELIVERY OF HEALTH CARE

3.2.1 Facilities

Most out-patient physicians in the FRG work in solo practice and organized group practices are rare. Many large firms do have a multi-disciplinary health center to serve their workers.

There has been a decrease in the number of hospitals in the FRG, while the number of beds has increased. Interestingly, the percentage of beds that are in privately owned hospitals has been increasing (Table 15). Occupancy rates have decreased as the number of beds per inhabitants has increased (Table 16). The aforementioned planning legislation is hoped to reverse this trend.

⁵⁸ Daten des Gesundheitswesens, p. 24

TABLE 15

Hospitals and their Size in the FRG

Year	Hospitals	Beds	Beds/ 10,000	Percent Beds in These Hospitals:		
				Public	Community	Private
1960	3,604	583,513	104.6	55.9	36.9	7.2
1970	3,587	683,254	112.0	54.6	36.5	8.9
1980	3,234	707,710	114.8	52.4	36.4	12.3

59 60

TABLE 16

Occupancy Rates in Hospitals in the FRG

Year	Acute Care	Special Care
	Facilities	Facilities
1965	89.0%	96.1%
1970	86.8%	92.0%
1975	81.8%	85.4%
1978	83.4%	85.4%

61

3.2.2 Manpower

There is an ample supply of physicians in the FRG as evidenced by a population per physician ratio of 422/1 in 1978.⁶² However, the range among the eleven lander(states)

⁵⁹ Krankenhausen, p.7⁶⁰ Daten des Gesundheitswesens, p. 233⁶¹ Ibid., p.243

is great varying from 560/1 in Niedersachsen to 261/1 in West Berlin.⁶³ Among outpatient physicians the ratio of population per physician was 1,039/1 and the range in this value varied from 627/1 in Hamburg to 1,369/1 in Saarland.⁶⁴ To amend this uneven distribution the Doctors' Association will give financial assistance to those wishing to set up practice in a low physician density area. Banks are wary of giving credit to physicians wishing to establish their practice in high physician density areas.

In 1975, only 2,301 physicians or about 4% of office based physicians worked in 1,131 group practices.⁶⁵ 53% of outpatient physicians were specialists in 1978, a rise from 34% in 1952.⁶⁶ 46.4% of all physicians were specialists in 1978.⁶⁷

In 1978, 45.8% of physicians worked in ambulatory settings, 45.5% were employed by hospitals and 9.1% were employed as administrators or researchers.⁶⁸ The percentage of physicians working in hospitals has been steadily rising

⁶² Ibid., p. 209

⁶³ Ibid., p. 210

⁶⁴ Ibid., p.214

⁶⁵ "Report from Germany", p. 333

⁶⁶ Ibid., p.333

⁶⁷ Daten des Gesundheitswesens, p. 213

⁶⁸ Ibid., p.209

(Table 17). This may be related to an increase in the degree of specialization physicians are acquiring and possibly the increasing financial difficulty of establishing a solo office practice.

TABLE 17

Physicians in the FRG

Physicians	1960	1970	1980
Total	79,350	99,654	135,711
Per 100,000 pop.	142	163	221
Office Based	62%	51%	45%
Hospital Employed	29%	39%	46%
Research & Administration	9%	10%	9%

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The number of nurses has also been steadily increasing (Table 18) although physicians still complain of a nursing shortage. In 1978 there were 2.86 regular nurses per 1000 inhabitants.

TABLE 18

Nurses in the FRG

	1970	1978
Nurses	123,340	175,660
Pediatric Nurses	16,604	24,679
Nurses Aides	21,173	44,606
Midwives	6,857	5,541

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⁶⁹ "Report from Germany", p. 333

⁷⁰ Daten des Gesundheitswesens, p.224

Although most pre-natal care is provided by physicians, it is a legal requirement that a midwife be present at the time of confinement. Usually the midwife will perform the delivery under the supervision of physician and provide post-partum care. If a midwife is not present at the time of delivery, she is still notified in order to provide further care to mother and infant.⁷¹

⁷¹ Maternity Care in the World, p.178

Chapter IV

MATERNAL AND INFANT HEALTH CARE

The centrally planned and run health care system in the GDR has placed great emphasis on providing good pre-natal and peri-partal care for its citizens. First, it is hoped that pregnancies are planned and wanted. Towards that end family planning services, sexual counseling and contraception are readily available. 40% of women in their child-bearing years use hormonal contraceptives.⁷² Abortions were legalized in 1971 in part due to the high number of illegal abortions and their unfortunate sequelae. In 1971 there were 18,713 legal abortions; after liberalization of the law 115,623 legal abortions were performed in 1972.⁷³ In 1980, there were 86,522 legal abortions constituting 97.1 abortions/10,000 women and 35 legal abortions/100 live births. In addition, there were 2,477 illegal abortions reported.⁷⁴ Despite this relatively liberal abortion policy, sterilization is permissible only if the life or health of the women is seriously threatened by future pregnancy and also if the use of contraception has been ruled out. ⁷⁵

⁷² Das Gesundheitswesen in der DDR, p.68

⁷³ Ibid., p.70

⁷⁴ Ibid., p. 124

Women are encouraged to seek early pre-natal care in their local health centers. Government incentives include 100 Marks for beginning regular pre-natal care by the 16th week and an additional 50 marks for regular care during the sixth and seventh months. The success of this program is demonstrated by the fact that 89.2% of pregnant women enroll in pre-natal care by the 16th week and an additional 10.0% enroll during the 17th to 28th week (1979).⁷⁶ 19.8% of pregnant women participate in a psychological preparation course for child birth and 10.9% participate in a "mother course".⁷⁷ Pre-natal care is delivered by obstetricians/gynecologists working in ambulatory care settings. There was an average of one per 7,680 women over the age of fifteen in 1980, with a range in this ratio from 1/4,207 in East Berlin to 1/10,796 in the Kreis of Neubrandenburg.⁷⁸

I spent one morning observing a physician providing routine pre-natal care in a polyclinic. He worked closely with midwives who in addition to assisting him gave brief educational talks to small groups of women. Each woman receives her own "mother pass" so that she has a record of her weight gain, fundal height, blood pressure, medications and anything else of note. Since he reports seeing an average of

⁷⁵ Ibid., p.68

⁷⁶ Gesundheitswesen, DDR, p. 178

⁷⁷ Ibid., p. 178

⁷⁸ Ibid., p. 172

forty patients a morning, visits are quick and routine. If any complications of pregnancy arise or if the patient is considered high-risk she is referred to the University polyclinic for her care. He estimated that 15% of pregnant women receive an ultra-sound exam, indications for which are bleeding, uncertain dates, size-for-dates discrepancies and questions of fetal lie.

The physician whom I interviewed complained of the impersonal atmosphere at the polyclinic. He wished he had more time for his patients. Prior to working in the polyclinic he had worked in the local hospital. He said that when abortions were legalized he had to leave that position as he refused to perform them.

Almost all births are in hospital. Midwives perform the routine deliveries with physician supervision. I was told that the Caesarian section rate is 6%. The labor and delivery suite I visited contained two private delivery rooms and one delivery room that accommodated three women. Large ward rooms with up to ten beds still appear to be the norm, so that "rooming-in" for mother and baby is impossible. Alternatives to the hospital delivery room, such as birthing rooms, home deliveries, or birthing centers, do not exist. The emphasis in the GDR is to provide good basic medical care, the amenities that Western patients may take for granted do not exist.

The average length of hospital stay is 7.9 days for a normal spontaneous vaginal delivery.⁷⁹ This reflects both cultural and economic factors. It is traditional for a German woman to stay one week in the hospital following a delivery. In fact the German word for the puerperium is "wochenbett" which literally translated means "week bed". In the FRG the average length of stay for all deliveries is 9.1 days and specifically for those with complications it is 10.2 days (1980).⁸⁰

In the FRG there are no national programs pertaining to pre-natal care. Also, abortion legislation has only been minimally liberalized. Indications for legal abortions are:

- if the life or health of the mother is endangered by the pregnancy
- evidence of serious congenital abnormalities in the fetus(prior to the 22nd week)
- if the woman was the victim of rape or incest (first trimester only)
- if a woman is in a situation of extreme difficulty and continuation of pregnancy is deemed too burdensome for her (first trimester only).⁸¹

Statistics on the number of legal abortions indicate a rapid rise (see Table 19). The number of legal abortions per 10,000 women in the FRG is 25.8, approximately one quarter of the rate in the GDR. There are 14 legal abortions/100 births, this figure is significantly less than the GDR statistic. The reasons for this may be manifold. Women in the

⁷⁹ Ibid., p. 124

⁸⁰ Krankenhauser, p. 34

⁸¹ Bundesminister für Jugend, Familie & Gesundheit, "Frauen"

FRG may travel to other European countries for their abortions or have them performed illegally. The church may have a stronger influence in the West and a higher percent of the FRG population is Catholic. Since oral contraceptives and prophylactics are readily available in the GDR, the lack of birth control should not account for this discrepancy. Birth control is readily available in the FRG, and as with other medications the purchaser need only pay the maximum fee of 2.5 DM (approximately one dollar).

Table 20 shows the indications for abortions in the FRG. The percent attributed to "other serious situations" has grown considerably indicating a broader interpretation of this category. Most abortions are performed in the first trimester, in 1979 91.8% were undertaken prior to the thirteenth week.⁸² There is an increasing tendency to perform abortions in an office setting; the number has risen from 5.1% in 1976 to 31.9% in 1979.⁸³ The outpatient physician is reimbursed for this service when it is performed in an ambulatory setting.

⁸² Ausgewahlte Zahlen fur das Gesundheitswesen, p. 29

⁸³ Ibid.

TABLE 19

Induced Abortions in the FRG

Year	1976	1977	1978	1979
Total	13,044	54,309	73,548	82,788
Per 10,000	10	41	56	62
Women 15-44				
Per 10,000	4.1	16.9	22.9	25.8
Women				

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TABLE 20

Indications for Abortions in the FRG

Indications	Percent of Abortions			
	1976	1977	1978	1979
Medical	37.8	29.0	22.9	20.8
Psych.	10.8	7.7	5.0	3.4
Genetic	5.2	4.3	3.7	3.8
Ethical	0.2	0.1	0.1	0.1
(Criminal)				
Other Serious	44.9	57.7	67.0	70.6
Situations				
Unknown	1.1	1.1	1.2	1.3

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Pregnant women like other FRG citizens can see the physician of their choice. If a problem arises the physician may elect to refer or to continue that patient's care. There were 4458 obstetrician/gynecologists working in ambulatory

⁸⁴ Ibid.

⁸⁵ Ibid.

settings and 2241 working in hospitals in 1978.⁸⁶ As in the GDR virtually all deliveries take place in hospitals. In 1978 99.1% of deliveries were in-hospital up from 66.3% in 1960.⁸⁷

It is difficult to compare statistics on maternal mortality due to the small numbers involved, varying definitions of maternal mortality and the possible reporting differences in the two countries. The present ICD IX definition of maternal mortality is "the death of any woman while pregnant or within 42 days of termination of pregnancy from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes".⁸⁸ This definition is broader than the ICD VIII because it includes deaths which are due to conditions which are aggravated by pregnancy. Table 21 shows that there has been a steady decline in the peri-partal mortality in the GDR. However, these are only the maternal deaths that took place in hospital in the peri-partal period.

⁸⁶ Daten des Gesundheitswesens p.214

⁸⁷ Ibid., p.256

⁸⁸

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Table 22 details all the maternal deaths in the GDR and lists the causes of death for those hospitalized. Unfortunately, the total number of maternal deaths is not reported according to the ICD IX definition. The 1980 figure includes four maternal deaths due to accidents.⁸⁹ The largest contributor to the indirect deaths was cardiovascular disease.⁹⁰

TABLE 21

Mortality of those Hospitalized for Peripartal Illness in the GDR

Year	Total	Maternal Deaths per 10,000 Births
1965	182	6.5
1970	100	4.2
1975	39	2.2
1978	38	1.6
1980	36	1.5 *

*1980 data preliminary

91

Maternal mortality in the FRG has also been steadily decreasing (see Table 23). Table 24 lists the causes of maternal death in 1978 according to ICD VIII. Table 25 lists the causes of maternal death in 1980 according to ICD IX.

⁸⁹ Gesundheitswesen, DDR, p. 17

⁹⁰ Ibid., p. 18

⁹¹ Ibid., p.18

TABLE 22

Peripartal Mortality by Cause 1978-1980 in the GDR

	Total			Maternal Mortality Per 10,000 Births		
	1978	1979	1980	1978	1979	1980
Total	80	92	70	3.45	3.91	2.85
Unknown	-	-	1	-	-	0.04
Indirectly or not hospitalized	42	38	33	1.81	1.60	1.35
Directly hospitalized	38	54	36	1.64	2.30	1.47
-Hemorrhage	12	21	10	0.52	0.89	0.41
-Toxemia	6	6	5	0.26	0.25	0.20
-Infection	5	8	8	0.22	0.34	0.33
-Emboli	8	10	6	0.34	0.42	0.24
-Abortion	3	6	6	0.13	0.25	0.24
-Ectopic	3	1	-	0.13	0.04	-
-Other	1	2	1	0.04	0.08	0.04
1980 data preliminary						

The directly related maternal deaths rate is lower in the GDR(see Table 26). One may wonder if the different abortion policies have an impact on this figure. As can be seen from Table 27 the deaths due to abortions are extremely few and the FRG had even fewer deaths then in GDR from this cause in 1980. Little can be concluded from comparing these statistics because the numbers are small and different reporting methods could easily affect the statistics. However, in both countries a significant decrease in maternal mortality has been observed. Factors that may have contributed to this include better utilization of pre-natal care and hospitals, technical advances in medical care, fewer unwanted births, and lower parity.

TABLE 23

Peripartal Mortality in the FRG

Year	Maternal Deaths Per 10,000 Births
1965	6.93
1970	5.18
1975	3.96
1978	2.55
1980	2.06

According to ICD VIII except for 1980 data which is ICD IX

TABLE 24

Maternal Mortality by Cause of Death 1978 in the FRG

ICD VIII	Cause	Deaths	Deaths per 10,000 live births
A112	Toxemia	26	4.51
A113	Hemorrhage prior to & after delivery	19	3.30
A114	Legally induced abortion	2	0.35
A115	Other abortions	12	2.08
A116	Sepsis at delivery & in the puerperium	37	6.42
A117	Other complications during pregnancy, delivery & the puerperium	51	8.85
A112-117	Total	147	25.50

94

⁹⁴ Daten des Gesundheitswesens, p. 176

TABLE 25

Maternal Mortality by Cause of Death in the FRG

ICD IX	
633 Ectopic pregnancy	6
634 Spontaneous abortion	-
635 Legally induced abortion	-
637 Unspecified abortion	4
630-632, Mole, abnormal products of conception, missed	6
636,638,639 abortion, illegal abortion, failed legal induction, complications following abortions	
640 Hemorrhage in early pregnancy	-
641 Antepartum hemorrhage	7
642 Hypertension complicating pregnancy, delivery, puerper.	19
646 Other nonclassified complications	3
643-645 Excessive vomiting, pre-labor or threatened labor,	
647,648 prolonged pregnancy, infectious and parasitic disease, & other conditions classifiable elsewhere.	7
652-654 Malposition or fetal disproportion, abnormalities of the pelvis	3
651,651-659 Other indications for intervention during labor & delivery	4
660-669 Complications occurring mainly in the course of labor & delivery	32
670 Puerperal infections	12
671 Venous complications	3
673 Obstetrical pulmonary emboli	15
672,674-676 Other complications of the puerperium	7
630-676 Total	128

TABLE 26

Directly Related Maternal Deaths, FRG & GDR

Year	Maternal Deaths per 100,000 Live Births	
	GDR	FRG
1978	1.64	2.55
1980	1.47	1.95*

*subtracting those deaths under the ICD IX Category 647,648,643-645

96 97

TABLE 27

Maternal Deaths Attributable to Abortions, GDR & FRG

Year	Maternal Deaths per 100,000 Live Births Attributable to Abortions	
	GDR	FRG
1978	1.3	2.43
1980	2.4	1.60

98

The infant mortality in the GDR has declined from 38.8 per 1000 live births in 1960 to 12.1 per 1000 live births in 1980. This reflects excellent pre-natal care, the regionalization of health care and the development of neo-natal intensive care units. Table 28 demonstrates the overall decreasing infant mortality and specifically the decrease among both low birth weight and non-low birth weight babies.

⁹⁶ Ibid., p.67

⁹⁷ Daten des Gesundheitswesens, p. 176

⁹⁸ Ibid.

TABLE 28

Infant Mortality per 1000 Live Births by Birth Weight in the
GDR

Year	Total	Birth Weight Under & Including 2500g(1)	Birth Weight Over 2500g(2)
1970	18.5	160.4	9.6
1975	15.9	139.8	7.4
1978	13.1	113.6	6.0
1980	12.1	107.7	5.7

(1)1980 data computed using birth weight up to 2499g.

(2)1980 data computed using birth weight from 2,500 g.

99

The FRG has also had a significant decrease in infant mortality from 23.4 per 1000 live births in 1970 to 12.7 per live births in 1980 (see Table 29). Their infant mortality has consistently been higher than that of the GDR, although this gap appears to be closing. It is interesting to note that the survival of low birth weight babies in 1978 was higher in the GDR than in the FRG despite the relative economic wealth of the latter. The small gap of 0.6 in 1980 in infant mortality rates is probably insignificant.

⁹⁹ Gesundheitswesen, DDR, p. 20

TABLE 29

Infant Mortality per 1000 Live Births in the FRG

Year	Total	Birth Weight <2500g	Birth Weight >2500g
1970	23.4		
1976	19.7		
1978	14.7	128.9	6.0
1980	12.7		

100

A small, but significant percentage of the FRG population is foreign. "Gastarbeiters" or guest workers from Italy, Yugoslavia, Turkey, Greece and other countries come to the FRG for economic betterment. Table 30 details the significant percentage of births that they account for. Table 30 also shows that the foreigners have a higher stillbirth rate and infant mortality rate. This may be due to demographic factors and that the guestworkers are not as integrated into German society and therefore may not be as integrated into the health care system. If the guestworkers' higher infant mortality is excluded the infant mortality of native Germans remains higher than the GDR figures (Table 30).

TABLE 30

Foreigners in the FRG--Their Percentage of Live Births,
Stillbirths & Infant Mortality

Year	Percent of Births	Percent of Stillbirths	Foreigners' Infant Mortality	Nation's Infant Mortality	Native German Infant Mortality
1975	16%	21%	21.4	19.7	19.5
1976	14%	18%	19.9	17.4	17.0
1977	13%	21%	18.9	15.4	15.1
1978	13%	18%	16.6	14.7	14.4
1979	13%	17%	15.5	13.5	13.2

101

As Table 31 demonstrates there has been a steady reduction in both stillbirths and in infant mortality from 1972-1980 in both the FRG and the GDR. The reasons for these decreases are probably multifactorial and may vary for each subgroup. Good pre-natal care, proper management of high-risk pregnancies, and appropriate transport of pre-natal patients and infants to specialized hospitals have probably contributed to the decrease in the number of stillbirths and infant mortality in first month of life. Improved neo-natal care has improved overall infant mortality. Policies in both countries designed to provide regular health care for infants, immunizations and instructions for mothers on important aspects of infant care may have had an effect on the decrease of late infant mortality. In the GDR much of the aforementioned is done through daycare centers

¹⁰¹ Ibid., p. 20

and later in the schools. In the FRG it is recommended that each child undergo eight exams at specific ages up to the age of four years for preventive and screening purposes. The results of the exams are compiled for statistical purposes by the government. Table 32 shows the participation rates.

TABLE 31

Stillbirths and Infant Mortality by Age per 1000 Live Births

Year	Still- births	Under 24 Hrs.	0-Under 7 days	0-Under 28 days	7 days- under 1 yr.	28 days- under 1 yr.	Under 1 yr.
<u>GDR</u>							
1972	9.2	5.2	10.1	11.6	7.5	6.0	17.6
1976	7.3	4.0	8.6	10.5	5.3	3.5	14.0
1978	7.1	3.3	7.6	9.5	5.5	3.6	13.1
1980	6.7	2.7	6.8	8.6	5.3	3.5	12.1
<u>FRG</u>							
1972	9.4	9.0	14.7	16.9	7.8	5.6	23.3
1976	7.4	5.8	9.8	11.9	7.5	5.5	17.4
1978	6.3	4.4	7.4	9.2	7.2	5.4	14.7
1980	---	3.7	6.3	7.8	6.3	5.5	12.7

102 103 104

¹⁰² Gesundheitswesen, DDR, p. 22

¹⁰³ Daten des Gesundheitswesen, pp. 20, 178

¹⁰⁴ Todesursachen p. 64

TABLE 32

Participation Rates in the Preventive Exams in the FRG in 1978

Newborn	Age of Child						3 1/2-4 years
	3-10 days	4-6 weeks	3-4 mos.	6-7 mos.	10-12 mos.	21-24 mos.	
81.6%	88.2%	90.5%	84.9%	82.3%	79.8%	70.0%	56.6%

105

In the GDR there has been a decrease in infant mortality despite an increase in the frequency of low birth weight babies. Low birth weight is known to correlate with a poor outcome.¹⁰⁶ Table 33 shows the distribution of birth weights in the GDR and the FRG. As can be seen there has been an increase in low birth weight in the GDR which could be due to improvements in pre-natal care so that more fetuses reach viability, but are nonetheless pre-term. Low birth weight is associated with young maternal age.¹⁰⁷ In the GDR there has not been an increase in the number of teenage pregnancies, (see Table 34) but women do tend to have their children at an earlier age than in the FRG. The average age at which a married woman has her first child is 25.1 years in the FRG (1978) and 22.2 in the GDR.^{108 109} The incidence

¹⁰⁵ Daten des Gesundheitswesens, p.32

¹⁰⁶ Clewell, "Prematurity"

¹⁰⁷ Taffel, "Factors Associated with Low Birth Weight"

¹⁰⁸ Daten des Gesundheitswesens, p.24

of low birth weight is slightly lower in the FRG (Table 33). The decrease in the incidence of babies weighing over 4500g in the GDR (see Table 33) most likely reflects better control of the diabetic mother.

TABLE 33

Incidence of Various Birth Weights in the GDR and the FRG

Birth weight in grams	Percent of live births		
	GDR 1969	GDR 1978	FRG 1978
-1000	0.3	0.1	0.2
1000-1500	0.5	0.5	> 1.5
1500-2000	1.2	1.3	>
2000-2500	3.8	4.7	4.6
2500-3000	18.0	21.8	16.2
3000-3500	38.9	41.5	40.0
3500-4000	28.3	24.4	28.6
4000-4500	7.8	5.1	7.7
4500-5000	1.1	0.6	0.9

Total under 2500g.	5.8	6.6	6.3

110

¹⁰⁹ Statistisches Jahrbuch der DDR, p. 368

¹¹⁰ Gesundheitswesen der DDR, p.21

TABLE 34

Live Births per 1000 Women(Ages 15-40) by Age of the Mother
in the GDR

Year	Live Births per 1000 Women by Age of the Mother				
	15	16	17	18	19
1960	4.0	19.0	54.3	104.2	143.6
1970	3.6	20.3	61.5	129.0	180.3
1979	3.8	16.5	51.2	109.2	158.7

111

In studies in this country, legitimacy is a factor associated with better infant outcome and higher birth weight.¹¹² Whether this holds true for the population in the GDR is merely speculative. The proportion of children that are illegitimate in the GDR has been rising to the point where approximately one out of every five births was to a single mother in 1979, yet the infant mortality continues to decline. (see Table 35). In the FRG, this risk factor appears to be hold. In 1978 64% of the low birth weight babies were illegitimate, while only 7% of all live births were illegitimate (Table 35).¹¹³

¹¹¹ Statistisches Jahrbuch, p. 366

¹¹² Taffel, "Factors Associated with Low Birth Weight"

¹¹³ Daten des Gesundheitswesens, p. 189

TABLE 35

Births According to Legitimacy

Year	Percent of Births that are Illegitimate	
	GDR*	FRG
1960	11.6%	6.3%
1970	13.3%	5.5%
1975	16.1%	6.1%
1979	19.6%	7.1%

*GDR statistics include stillbirths

114 115

In both countries a significant fraction of those infants who succumb in the first year of life are afflicted with a congenital anomaly(see Table 37).

¹¹⁴ Ibid., p. 20

¹¹⁵ Statisches Jahrbuch, p. 368

TABLE 37

Infant Deaths per 10,000 Live Births Due to Congenital
Abnormalities in 1980

Type of Congenital Anomaly	Deaths/10,000 Live Births	
	GDR	FRG
Nervous System	3.8	5.9
Cardiovascular	13.7	13.0
Digestive	2.0	1.8
Uro-genital	0.7	-
Other	5.5	

Class XIV(9th ICD)	25.8	31.1

116 117

A breakdown of the causes of infant death in the GDR can be seen in Tables 38 and 39 . Low birth weight and respiratory problems are the major contributors to infant mortality in both countries.

Statistics on stillbirths in the GDR and the FRG are presented in table 40 . Comparable FRG statistics were not available. A large number of stillbirths are attributed to maternal complications of pregnancy and birth. Reportedly, the Caesarian section rate is 6%; whether an increase in this rate would result in better outcomes is beyond the scope of this paper.

¹¹⁶ Gesundheitswesen der DDR, p.139

¹¹⁷ Todesursachen, p.66

The data presented here represents the more pertinent data available from both countries. A further discussion of this material will be presented in the final chapter.

TABLE 38

Certain Conditions Originating in the Perinatal Period
 Absolute Infant Mortality & per 10,000 Live Births in the
 GDR in 1980

Diagnosis	ICD 9th Rev. Code No.	Infant Deaths	
		Absolute	Per 10,000 Live Births
Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	760	22	0.9
Fetus or newborn affected by maternal complications of pregnancy and birth	761-763	342	14.0
Slow fetal growth, fetal malnutrition, prematurity and unspecified low birth weight	764,765	408	16.6
Birth Trauma	767	49	2.0
Intrauterine hypoxia, birth asphyxia, RDS & other respiratory conditions of fetus & newborn	768-770	412	16.8
Hemolytic disease of fetus & newborn, other peri-natal jaundice	773,774	14	0.6
Post-dates, high birth weight, infections, hemorrhage	766,771, 772, 775-779	464	18.9
Total Class XV	760-779	1,711	69.8

TABLE 39

Certain Conditions Originating in the Perinatal Period,
Absolute Infant Mortality and per 10,000 Live Births in the
FRG in 1980

Diagnosis	ICD 9th Rev. Code No.	Infant Death	
		Absolute	Per 10,000 Live Births
Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	760	14	0.23
Fetus or newborn affected by maternal complications of pregnancy and birth & birth trauma	761-763 767	514	8.28
Slow fetal growth, fetal malnutrition, prematurity and unspecified low birth weight	764,765	1,142	18.40
Intrauterine hypoxia, birth asphyxia, RDS & other respiratory conditions of fetus & newborn	768-770	1,410	22.72
Hemolytic disease of fetus & newborn, other peri-natal jaundice	773,774	29	0.47
Total Class XV	760-779	3,568	57.49

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TABLE 40

Certain Conditions Originating in the Perinatal Period
Causing Stillbirths in the GDR in 1980

Diagnosis	ICD 9th Rev. Code No.	Stillbirths			
		Absolute		Per 10,000 Live Births	
		1979	1980	1979	1980
Fetus or newborn affected by maternal conditions which may be unrelated to present pregnancy	760	55	62	2.3	2.5
Fetus or newborn affected by maternal complications of pregnancy and birth	761-763	663	617	28.0	25.0
Slow fetal growth, fetal malnutrition, prematurity and unspecified low birth weight	764,765	59	46	2.5	1.9
Birth Trauma	767	3	5	0.1	0.2
Intrauterine Hypoxia, birth asphyxia, RDS & other respiratory conditions of fetus & newborn	768-770	372	411	15.7	16.6
Hemolytic disease of fetus & newborn, other peri-natal jaundice	773,774	10	13	0.4	0.5
Post-dates, high birth weight, infections, hemorrhage	766,771, 772, 775-779	282	325	11.9	13.2
Total Class XV	760-779	1,444	1,479	60.9	59.9

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Chapter V

DISCUSSION

From the descriptions and data presented in this paper one can conclude that both Germanys have different but excellent health care systems. In both countries citizens are guaranteed the right to health care and toward that end out-patient and in-patient care, medications and other services and benefits are provided. Statistics relating to maternal and infant health reflect not only a high standard of living but also the benefits of good medical care in both the FRG and the GDR.

One of the most striking differences between the systems is that the GDR has a centrally run and planned health care system, whereas the FRG government's involvement is limited. In the FRG power is separated between a number of institutions and most legislative responsibility lies at the Lander(state) level. The FRG has recently recognized the need for the planning and regionalization of health care. In the FRG, incentives rather than directives are being used. The FRG government has assigned the task of improving the distribution of health care to the Doctors' Association.

A rising number of hospital beds and a decreasing occupancy rate have led the FRG to strive for better planning of hospitals. The number of hospital beds in the GDR has been decreasing. In 1980, the GDR had 102.7 hospital beds/10,000 while the FRG had 114.8 hospital beds/ 10,000.^{121 122} Interestingly, despite this difference the occupancy rate is lower in the GDR(83% vs. 75%).^{123 124}

It is difficult to compare the financial aspects of the two systems because funding is broken down differently in the two countries and statistics on capital outlays in the GDR are not available. In the GDR a greater percentage of health care funds come from the federal budget. In both countries more money is spent on in-patient care than on out-patient care.

The GDR's political and social system is better designed to carry out preventive health care programs. This is evidenced by the high enrollment in their pre-natal care program. The high percentage of children in state run daycare centers and schools allows for easy screening and follow-up. The FRG's government has made recommendations that all children receive eight examinations by age four and that the re-

¹²¹ Gesundheitswesen, DDR, p.222

¹²² Krankenhausern, p. 7

¹²³ Ibid.

¹²⁴ Gesundheitswesen, DDR, p.222

sults of these exams be compiled for statistical purposes. However, by the recommended seventh examination at age three years there is only a 70% participation rate.¹²⁵

The physician to population ratio is excellent in both countries, 1/570 in the GDR and 1/422 in the FRG.¹²⁶ ¹²⁷ The ratio of out-patient physicians is slightly better in the GDR, 1/951 vs. 1/1,039, and the range of this value is better in the GDR.¹²⁸ ¹²⁹ The ratio of nurses to population is higher in the GDR than in FRG, 4.4/1000 vs. 2.9/1000.¹³⁰
¹³¹

In both countries, patients have the right to choose the physician of her/his choice. But in both countries popular doctors tend to be booked up and in the FRG the member of a poor sickness fund will find that he/she has to wait longer to see a physician than will the member of a wealthy sickness fund.

¹²⁵ Daten des Gesundheitswesens, p. 32

¹²⁶ Daten des Gesundheitswesens, p. 209

¹²⁷ Gesundheitswesen, DDR, p. 172

¹²⁸ Ibid.

¹²⁹ Daten des Gesundheitswesens, p. 214

¹³⁰ Ibid. p. 224

¹³¹ Gesundheitswesen, DDR, p. 272

A striking similarity is that in both the FRG and the GDR ambulatory and in-patient care providers are different. Such a set-up is devisive to the continuity of care. It was commented upon that in the FRG the length of hospital stay was adversely effected by poor communication between in-patient and out-patient physicians, by the repetition of tests and by concerns on the part of in-patient physicians of appropriate follow-up. One may hypothesize that in the GDR the communication between the two staffs may be better because the system is more formalized and that little repetition of tests occurs due to bugdetary constraints and the lack of physician re-imbursement on a fee-for-service basis. This is not borne out by the average length of stay which is approximately twenty days in both countries.^{132 133}

Through my observations and discussions I noted a greater emphasis on technology in the FRG. This could not be substantiated by statistics as the available financial statistics were limited. In the FRG there is little billing supervision, a re-imbursement schedule that grants higher awards for procedures and an availability of technology that may encourage a procedure oriented practice. In the GDR, resources are limited and therefore carefully allocated. In addition, the vast majority of physicians in the GDR are salaried.

¹³² Krankenhauser, 1980 p. 31

¹³³ Das Gesundheitswesen, DDR p. 201

As noted the practice of medicine is very different in the two Germanys. Whether there is greater satisfaction on the part of patients and physicians in either country is beyond the scope of this paper. In both the Germanys I heard frequent complaints of the brusque and impersonal manner of physicians. The downfall of the doctor-patient relationship seems to be a theme in many countries including the U.S..

Interestingly, people in the GDR did not complain that physicians earned too much as did people in the FRG. Although I was told physicians in the GDR earn twice to three times as much as the average worker it is more difficult to display wealth in the GDR. There is a shortage of consumer goods and even a physician must wait ten years to purchase a car.

The FRG is a wealthy, capitalist country which is reflected by the pleasant, modern physical plants and the abundance of technical resources. The health care system in the FRG is class oriented with distinctions made between blue collar workers, white collar workers and purchasers of private insurance. In the GDR, this is not the case; in fact blue collar workers reap certain benefits such as preferential acceptance of their children to the universities and better opportunities for vacations. Certainly, the elite of the government and industry enjoy special privileges and it was not infrequent that I was told the importance of "connections".

There is some evidence of greater control over physicians in a state run system. There are fewer specialists in the GDR than in the FRG. This reflects the GDR's emphasis on primary care and perhaps less of an emphasis on technology. Another factor is that the GDR sought first to replete the supply of generalists after the pre-Wall brain drain.

However, whether a system is rigidly state controlled or based on free market principles the distribution of health care is a problem. There is a shortage of physicians in rural areas in both countries. This reflects the political power and autonomy of physicians in both settings.

As much of this work centers on mothers and infants a few closing comments on the lives of the elderly may be illuminating. A principle of care of the elderly in the GDR is to keep them as fully integrated with the general population as possible. Toward that end there is no special training in geriatrics for health professionals. Nursing homes and housing for the elderly are built amidst housing for the general population. Their housing units differ from ordinary units in that they are equipped with elevators, access for wheelchairs, and the opportunity to obtain a hot meal nearby. Westerners, and many GDR citizens are struck by the coldness and barrenness of modern socialist architecture. I expected that it would be very hard for an elderly person to move from their old neighborhood and friends into such ste-

rile housing developments. However, most of the people I spoke with were quite happy to be in the company of other elderly people, and their new apartments were much easier for them. No longer did many of them have to carry coal and groceries up four flights of stairs. Housing is quite limited so people appreciate what they are able to obtain.

For the elderly who remain in their own apartments, Volkssolidaritat, an organization made up of volunteers and low-paid workers, provides meals-on-wheels and housekeeping services. Volkssolidaritat also runs social clubs. Hot mid-day meals are provided by Volkssolidaritat, social welfare organizations, and factories for former employees.

The need for an increase in the number of nursing home beds in the GDR has been recognized. In 1979 21 new homes opened with a total occupancy of 5,689. The number of beds in facilities for the aged is 40.4 per 1000 retirees (15.7 beds in homes for the aged and 24.7 beds in skilled nursing homes).¹³⁴

The quality of the nursing homes in both Germanys is difficult to assess. I was allowed to visit two nursing homes in the GDR, but visits to two others were not permitted. Reportedly, these were in poor repair and dirty. I visited a total of five nursing homes in the FRG. The nursing homes in West Germany were physically more impressive. My discus-

¹³⁴ Gesundheitswesen, DDR, p.238

sions in both Germanys with staff, social workers, residents and family members of residents led me to conclude that the quality and morale of the staff were critical to what was felt to be the quality of the care.

As in the GDR, the FRG has special clubs for the elderly, meals-on-wheels and special housing for the elderly. Many of the conscientious objectors to military service work providing care to the elderly.

In industrial societies such as the GDR and the FRG where worth is frequently measured in terms of productivity the transition from productive worker to pensioner is frequently difficult. The average pensioner in the GDR receives one third of the average workers' earnings whereas in the FRG a pensioner receives 60% of the average workers' salary.¹³⁵ The meager pension plan and the free emigration policy for those of retirement age reflect the GDR's desire to reduce the financial burden the elderly place on the country. It appeared that the greater wealth of the FRG made life for pensioners more enjoyable.

Life in the GDR is greatly different from life in the FRG. What effects the stresses of the housing shortage, the lack of consumer goods and the need to wait on line have is impossible to estimate. The GDR does not issue statistics on alcoholism or suicide.

¹³⁵ Steele, East Germany, p. 197

The impact of the GDR's policies and propaganda on the lives of its citizens is evidenced by a number of statistics presented in this paper. Due to a shortage of workers in the GDR, and the resultant incentives and support given to working women, a much higher percentage of women work in the GDR than in the FRG. This has led to a higher percentage of children in daycare and state run after-school programs in the GDR.

The GDR government has waged a campaign to increase the birth rate. This has met with success as evidenced by the younger age of first marriage and the higher birth rate in the GDR than in the FRG (Table 41).

TABLE 41

Birth Rates in the FRG & the GDR

Year	Live Births/1000 Inhabitants	
	FRG	GDR
1960	17.4	17.6
1965	17.7	16.5
1970	13.4	13.9
1975	9.7	10.8
1978	9.4	13.9

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A number of factors may account for the higher abortion rate, divorce rate, and illegitimacy rate in the GDR than in the FRG. The availability of contraception is not a problem

¹³⁶ Daten des Gesundheitswesens, p. 27

in the GDR, unlike reports from the Soviet Union. The impact of the Church may be weaker in the GDR. The socialist government and the high percentage of working women may have led to changes in social mores.

Given the higher illegitimacy rate, the greater incidence of low birth weight babies and the smaller amount of Western technology in the GDR compared with the FRG one could infer that the infant mortality rate would be higher in the GDR. That this is not the case implies that the GDR's careful distribution of resources, preventive health care programs and regionalization of care outweigh these factors. The small difference in the infant mortality between the two Germanys in 1980 and the many confounding variables makes conclusions regarding the relative effectiveness of the two systems impossible. What is important is that both countries continue to show decreasing infant mortality rates. Improved new-natal care, better pre-natal care and the regionalization of health care in both countries may help to explain this decline. In this country all these factors have been associated with reductions in infant mortality.¹³⁷

Both Germanys have excellent health care systems as evidenced by the data on maternal and infant health care. The GDR has established an organized, successful system which

works well within the GDR's political and economic system. The FRG system fits their consumer-oriented, capitalist society.

Appendix A

CURRENCY VALUES IN 1979

German Democratic Republic Mark(DDRM)

-Official GDR Value-	1.82 Marks= \$1.00
-Foreign Trade Transaction Value	3.48 Marks= \$1.00
-Black Market Value	8.25 Marks= \$1.00

Federal Republic of Germany Mark (DM)

-Official & Trade Value	2.42 Marks= \$1.00
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¹³⁸ Pick's Currency Yearbook, pp.242-253

BIBLIOGRAPHY

- Anderson, O., "Health Services in the U.S. and other Countries-Critical Comparisons", Medical Care: Social and Organizational Aspects. Springfield, Ill.: Leslie DeGroot, 1966, pp. 213-233.
- Beck, L. Mutter & Saulingssterblichkeit. Stuttgart: Bundesministers Fur Jugend, Familie & Gesundheit, 1978.
- Brandt, E., M.D., Ph.D., "Infant Mortality- A Progress Report", Public Health Reports. Vol. 99, No. 3, May-June 1984, pp. 284-288.
- Btresh, S., M.D., "International Research in the Organization of Medical Care",
- Bundesminister fur Jugend, Familie & Gesundheit, Daten des Gesundheitswesens, Ausgabe 1980. Stuttgart: Kohlhammer, 1980.
- Bundesminister fur Jugend, Familie & Gesundheit, Daten des Gesundheitswesens, Ausgabe 1983. Stuttgart: Kohlhammer, 1983.
- Buttner, V. et. al., Gesundheitspolitik. Jena: Gustav Fischer Verlag, 1980.
- Clewell, W., M.D., et. al., "Prematurity" The Jour. of Reproductive Medicine. Vol. 23, No. 5, Nov. 1979, pp. 237-243.
- DeMiguel, J. "A Framework for the Study of National Health Systems", Inquiry Supplement to Vol XII, June 1975, pp. 10-23.
- Dieck, M. & Gossling, S., Sektion Altenarbeit/Altenhilfe der Deutschen Gesellschaft fur Gerontologie. Berlin: Deutsches Zentrum fur Altenfragen, 1979.
- Dieck, M. Social and Medical Aspects of the Situation of Older People in the FRG Berlin: Deutsches Zentrum fur Altenfragen, 1981.
- Elling, R., Ph.D., "Health Planning in International Perspective", Medical Care. Vol. IX, No.3, May-June 1971, pp. 214-228.

Encyclopedia Britannica. Chicago:Encyclopedia Britannica, 1982.

Expert Committee on Public Health Administration, Methodology of Planning an Integrated Health Program in Rural Areas. Geneva:W.H.O., 1954.

Expert Committee on the Organization of Medical Care, "Role of Hospitals in Programs of Community Health Protection", W.H.O. Technical Report Series. No. 122, 1957.

Bundesminister für Jugend, Familie & Gesundheit, Frauen. Bonn:Verlag IP, 1980

Friedrich, R., Beruf für Dich, Ausbildungen im Gesundheits & Sozialwesen. Wittenburg: Elbe Druckerei, 1975.

The German Democratic Republic Dresden:Zeit-im-Bild, 1981.

Gesundheitsschutz in der DDR, Berlin:Institut für Sozialhygiene & Organisation des Gesundheitsschutzes, 1981.

Das Gesundheitswesen, DDR, 1981. Berlin:Institut für Sozialhygiene & Organisation des Gesundheitsschutzes, 1981.

Grazi, R., et. al., "Offspring of Teenage Mothers" The Jour. of Reproductive Medicine. Vol. 27, No. 2, Feb. 1982, pp. 89-95.

Gurtler, R. et. al., Rechtsprinzipien im Gesundheitswesen. Berlin:Verlag Volk & Gesundheit, 1980.

Institut für Sozialhygienien und Organisation des Gesundheitsschutz "Maxim Zetkin" Gesundheitsschutz in der DDR. Verlag Zeit im Bild:Dresden, 1981.

Int. Federation of Gyn./Ob. & Int. Confederation of Midwives, Maternity Care in the World. New York:Pergamon Press, 1976.

Kamerman, S. & Kahn, A., Child Care in Nine Countries Washington, D.C.:U.S. Dept. of HEW, 1975.

Kamerman, S., "Child Care and Family Benefits: Policies of Six Industrialized Countries" Monthly Labor Review. November 1980, pp. 23-28.

Kaunitz, A.,M.D. et. al. "Maternal Mortality Surveillance, 1974-1978" Morbidity and Mortality Weekly Report. Vol. 33/No. 1 SS, pp. 5-9.

Keck, A., Planung & Okonomie des Gesundheitswesens.
Berlin:Die Wirtschaft, 1981.

Knabe, H., et. al., Berufspraktische Ausbildung Medizin.
Berlin: Verlag Volk & Gesundheit, 1978.

Koontz, Ann, Ph.D., "Pregnancy and Infant Health: Progress
Toward the 1990 Objectives", Public Health Reports. Vol.
99, No. 2,pp. 184-192, March-April 1984.

Mabry, J.,Ph.D., "International Studies of Health Care",
Medical Care. Vol. IX, No. 3., May-June 1971, pp.
193-202.

Mandel, T. Arzte, Klinik & Patienten. Berlin:Staatsverlag
der DDR, 1980.

Marcussen, G., Sterblichkeit & Lebenserwartung. Berlin:
Verlag Volk & Gesundheit, 1981.

Medizinscher Schutz der Bevölkerung. Berlin:Verlag Volk &
Gesundheit, 1980.

Ministerium fur Gesundheitswesen Medizinische Betreuung &
Krankenstand. Berlin: Staatsverlag der DDR, 1981.

Pick's Currency Yearbook New York:Pick Publishing Corp.,
1981.

Puschel, H. et. al., Die Rentenversorgung der Arbeiter &
Angestellten in der DDR. Berlin:Verlag Tribune, 1980

Report on the Situation of the Elderly in the FRG. Berlin:
German Center of Gerontology, 1982.

Richter, C., Die Gemeindeschwester Berlin:Verlag Volk &
Gesundheit, 1981.

Roemer, M. & R., Health Manpower Policies Under Five
National Health Care Systems. Washington, D.C.:DHEW/HRA,
1977.

Schulenburg, J. "Report from Germany: Current Conditions and
Controversies in the Health Care System" Jour. of Health
Politics, Policy and Law. Vol. 8,No. 2, Summer 1983, pp.
320-365.

Simonis, J., National Health Systems in Eight Countries.
Washington, D.C.:U.S. Dept of H.E.W., 1975.

Statisches Bundesamt, Ausgewahlte Zahlen fur das
Gesundheitswesen, 1979. Stuttgart:Kohlhammer, 1981.

Statisches Bundesamt, Berufe des Gesundheitswesens, 1980
Stuttgart:Kohlhammer, 1982.

Statisches Bundesamt, Krankenhauser, 1980.
Stuttgart:Kohlhammer, 1982.

Statisches Bundesamt, Schwangerschaftsabbruche, 1981,
Stuttgart:Kohlhammer, 1982.

Statisches Bundesamt, Statisches Jahrbuch für die BRD
Stuttgart:Kohlhammer, 1983.

Statisches Bundesamt, Todesursachen, 1980.
Stuttgart:Kohlhammer, 1982.

Statisches Jahrbuch der DDR, 1981. Berlin:Staatsverlag der
DDR, 1981.

Steele, J. Inside East Germany. New York:Urizen Books,
1977

Stroer, Was Ich Über Meine Soziale Krankenversicherung
Wissen Sollte. Munich: Verlag Beck, 1982.

Subcomm. on Health of the Comm. on Ways & Means, U.S. House
of Rep., National Health Resource Book Washington, D.C.:
1976.

Taffel, Selma LE Factors Associated with Low Birth Weight.
Washington, D.C.:Dept. Vital Statistics, 1978.

U.S. Dept. of Health & Human Services, "Health Planning
Methods: Case Studies from the 1978 International
Workshop", International Health Planning Series. June
1980, pp.95-98.

von Balluseck, H., Die Pflege Alter Menschen. Berlin:
Deutsches Zentrum für Altenfragen, 1981.

Weinerman, R., M.D., "Research on Comparative Health Service
Systems", Medical Care. Vol. IX, No. 3, May- June 1971,
pp.272-290.

Winter, K. Das Gesundheitswesen in der DDR. Berlin: Volk &
Gesundheit Verlag, 1980.

Winter, K., "Health Services in the German Democratic
Republic Compared to the Federal Republic of Germany",
Inquiry. Supplement to Vol. XII, June 1975, pp. 63-68.

W.H.O., Health Services in Europe. Copenhagen: W.H.O.,
1981.

W.H.O., Sixth Report on the World Health Situation.
Geneva:W.H.O., 1980

W.H.O. Expert Committee, "National Health Planning in
Developing Countries", W.H.O. Technical Reports. Series
No. 350, 1967.

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